



STATE MINING AND GEOLOGY BOARD

EXECUTIVE OFFICER'S REPORT

For Meeting Date: February 19, 2004

ITEM 6 – Approval of a Financial Assurance Amount for the Dantoni Pit Site (Noble D. and Eleanor Plant, Operator), California Mine ID # 91-58-0011, Yuba County

[Continued from November 20, 2003]

BACKGROUND: The Surface Mining and Reclamation Act (SMARA, Public Resources Code Section 2710 et seq.) requires that each surface mining operation maintain a financial assurance in an amount adequate to reclaim, in accordance with the requirements of an approved reclamation plan, the land disturbed by the mining operation at the conclusion of mining activities. SMARA lead agencies are required annually to review the financial assurance amount for each surface mining operation, and adjust the amount as necessary to account for new land disturbed, inflation, or land reclaimed. In any event, the lead agency must ensure that the approved amount is adequate to reclaim the mine site according to the reclamation plan requirements. (PRC §2770, 2773.1; CCR §3804)

At the SMGB's March 13, 2003 meeting, the SMGB accepted the findings of the site inspection conducted on November 25, 2002, pursuant to PRC §2774, and requested the operator to provide a revised financial assurance cost estimate (FAE) by May 30, 2003. On June 2, 2003, the SMGB office received from the operator, Noble D. and Eleanor Plant, a financial assurance cost estimate in the amount of \$13,500.

This cost estimate was reviewed by the Department of Conservation's Office of Mine Reclamation, and the results presented to the operator and to the SMGB's Surface Mining Standards Committee at its September 11, 2003 meeting.

The SMGB office notified the operator by letter of September 17, 2003, of the Committee's conclusion that the operator must re-submit a revised financial assurance cost estimate that addressed several critical issues raised by the OMR in its review. The operator was provided until the close of business on October 10, 2003, to respond with a revised estimate. The operator responded by letter of October 8, 2003, (received at the SMGB office on October 10th.) with a revised cost estimate of \$36,084.

DISCUSSION: The revised cost estimate submitted by the operator is insufficient in detail to support the figures provided. The operator states that approximately 30 acres have been disturbed by the surface mining activities. Based on the analysis of the OMR and SMGB site inspections for 2002 and 2003, the amount of disturbed acreage is approximately 150 acres. At the SMGB's November 20, 2003 meeting, a financial assurance amount was calculated to be

EXECUTIVE OFFICER'S REPORT

\$2,140,585. A second financial assurance cost estimate in the amount of \$1,268,711 is, also, provided in this report. These estimates are discussed in detail following. Both cost estimates are based on stabilizing the approximately 150 acres site from its current condition. The primary reason for the cost differential is that Estimate I (\$2,140,585) provides for the importation of soil to be spread (one foot thick) on the site; whereas, Estimate II (\$1,268,711) provides for no importation of soil, but assumes that approximately 80,000 cubic yards of processed sands and silts are stockpiled on the site and available to cover approximately 100 acres as called for in the reclamation plan (a 6 inch depth is estimated).

Cost Estimate I (November 20, 2003)

This Cost Estimate is based on the following criteria:

- The site will be reclaimed to residential and recreational uses
- Approximately 100 acres will need to be graded and contoured
- Approximately 40 acres will be covered with soil
- Approximately 90 acres will be hydroseeded
- Removal of material from large boneyard with hazardous waste removal funding

I. Primary Reclamation Activities:

\$ 130,796

Slope grading and stabilization; removal and spreading of material piles; sloping of pond perimeter; reclaim sediment basin; grading for erosion control; ripping of roads and plant sites (100 acres).

Survey for grade control: (2 surveyors @\$175/hr x 48 hrs) = \$8,400

Prepare ponds for shoreline sloping (50 ac. pond)

[Rec. Plan, pg 15: pond will be approximately 50 acres by 2001]

(D8 Dozer @ \$175/hr¹ x 100 hrs) = \$17,500

(Cat blade @ \$150/hr x 100 hrs) = \$15,000

(Excavator @ \$201/hr² x 100 hrs) = \$20,100

Scarify Plant Site and boneyard (approx. 45 acres):

(D8 Dozer @ \$175/hr³ x 72 hrs) = \$12,600

(Cat blade @ \$150/hr⁴ x 72hrs) = \$10,800

Reclaim sediment pond, redistribute material piles:

(988 Loader @ \$193/hr⁵ x 72hrs) = \$13,896

Water for dust control:

¹ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

² Includes equipment rental, fuel, and operating labor

³ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

⁴ Includes equipment rental, fuel, and operating labor

⁵ Includes equipment rental, fuel, and operating labor

(Water Truck + Operator @ \$75/hr⁶ x 200 hrs) = \$15,000
Finish slope grading and site grading, including 100 ft. buffer strip:
[Rec. Plan, pg 15: maintain 100 ft. buffer strip]
(D8 Dozer @ \$175/hr⁷ x 100 hrs) = \$17,500

II. Revegetation Activities

\$ 960,355

Cover 40 acres with 1 foot of soil:
 $1,613 \text{ yd}^3/\text{ac.} \times 40 \text{ ac.} = 64,520 \text{ yd}^3$
Purchase $64,520 \text{ yd}^3 \times \$10/\text{yd}^3$ delivered = \$ 645,200
Spread $64,520 \text{ yd}^3$ soil:
 $(64,520 \text{ yd}^3 / 249 \text{ yd}^3/\text{hr} \times \$175/\text{hr}^8) = \$ 45,155$

Applicable dozing rate (D8 Caterpillar, standard blade)⁹:

$$\begin{matrix} \text{[A]} & \text{[B]} & \text{[C]} & \text{[D]} & \text{[E]} & \text{[F]} \\ (500 \text{ yd}^3/\text{hr})(0.75)(0.80)(0.83)(1) = 249 \text{ yd}^3/\text{hr. uncompacted} \end{matrix}$$

A = Initial push rate
B = Operator efficiency
C = Material density and cohesiveness
D = Job efficiency
E = Slope
F = Adjusted push rate for uncompacted final grade

Hydroseed with prescribed seed mix (for erosion control of soil):
 $(\$3,000/\text{ac.} \times 90 \text{ ac.}) = \$270,000$

III. Plant Structures and Equipment Removal:

\$ 425,000

Removal of processing facilities/equipment = \$125,000
Removal of boneyard materials = \$50,000
(Contingency for hazardous waste)¹⁰ = \$250,000

IV. Monitoring and Miscellaneous Costs:

\$ 35,000

⁶ Includes equipment rental, fuel, and operating labor

⁷ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

⁸ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

⁹ Caterpillar Performance Handbook

¹⁰ Ground contamination because of hot batch plant, large boneyard with machinery, tanks, tires, etc.

SMARA inspections (3 yrs. x \$2,000 each) = \$6,000
Revegetation replacement (10% of Planting Costs) = \$27,000
County grading/hauling permits = \$2,000

V. Summary of Direct Reclamation Costs: **\$1,551,151**

VI. Summary of Indirect Reclamation Costs: **\$ 310,228**

Supervision (3.6%; chart) = \$ 55,841
Profit & Overhead (6.9%, chart) = \$ 107,029
Contingencies (7%, chart) = \$ 108,580
Mobilization (2.5%, mid-point chart) = \$ 38,778

VII. Total of Direct and Indirect Costs: **\$1,861,379**

VIII. Lead Agency Administrative Costs: **\$ 279,206**
(15% of Direct and Indirect Costs)

IX. Total Estimated Cost of Reclamation: **\$2,140,585**

Cost Estimate II (February 19, 2004)

This Cost Estimate is based on the following criteria:

- The site will be reclaimed to residential / recreational / industrial park suitability
- Approximately 100 acres will need to be graded and contoured
- Approximately 100 acres will be covered with processed sand and silt
- Removal of large boneyard material with hazardous waste removal funding

I. Primary Reclamation Activities: **\$ 130,796**

Slope grading and stabilization; removal and spreading of material piles; sloping of pond perimeter; reclaim sediment basin; grading for erosion control; ripping of roads and plant sites (100 acres).

Survey for grade control: (2 surveyors @\$175/hr x 48 hrs) = \$8,400

Prepare ponds for shoreline sloping (50 ac. pond)

[Rec. Plan, pg 15: pond will be approximately 50 acres by 2001]

(D8 Dozer @ \$175/hr¹¹ x 100 hrs) = \$17,500

¹¹ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

(Cat blade @ \$150/hr x 100 hrs) = \$15,000
(Excavator @ \$201/hr¹² x 100 hrs) = \$20,100
Scarify Plant Site and boneyard (approx. 45 acres):
(D8 Dozer @ \$175/hr¹³ x 72 hrs) = \$12,600
(Cat blade @ \$150/hr¹⁴ x 72hrs) = \$10,800
Reclaim sediment pond, redistribute material piles:
(988 Loader @ \$193/hr¹⁵ x 72hrs) = \$13,896
Water for dust control:
(Water Truck + Operator @ \$75/hr¹⁶ x 200 hrs) = \$15,000
Finish slope grading and site grading, including 100 ft. buffer strip:
[Rec. Plan, pg 15: maintain 100 ft. buffer strip]
(D8 Dozer @ \$175/hr¹⁷ x 100 hrs) = \$17,500

II. Revegetation Activities

\$ 306,681

Cover 100 acres with 6 inches of sand and silt:
[Rec. Plan, pg. 17 diagram – 15 acres residential area and 85 acres industrial / commercial area to be covered with processed sand and silt]

$(1,613 \text{ yd}^3/\text{ac.})/2 \times (100 \text{ ac.}) = 80,650 \text{ yd}^3$
Assume: 80,650 yd³ of processed silt and sand already stored on site.
Spread 80,650 yd³ sand and silt:
 $(80,650 \text{ yd}^3 / 249 \text{ yd}^3/\text{hr} \times \$175/\text{hr}^{18}) = \$ 56,681$

Applicable dozing rate (D8 Caterpillar, standard blade)¹⁹:

[A] [B] [C] [D] [E] [F]
 $(500 \text{ yd}^3/\text{hr})(0.75)(0.80)(0.83)(1) = 249 \text{ yd}^3/\text{hr. uncompacted}$

A = Initial push rate
B = Operator efficiency
C = Material density and cohesiveness
D = Job efficiency

¹² Includes equipment rental, fuel, and operating labor

¹³ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

¹⁴ Includes equipment rental, fuel, and operating labor

¹⁵ Includes equipment rental, fuel, and operating labor

¹⁶ Includes equipment rental, fuel, and operating labor

¹⁷ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

¹⁸ Use of D8 Cat ; Includes equipment rental, fuel, and operating labor

¹⁹ Caterpillar Performance Handbook

E = Slope

F = Adjusted push rate for uncompacted final grade

Hydroseed with prescribed seed mix (for erosion control of sands & silts):
(\$2,500/ac. x 100 ac.) = \$250,000

III. Plant Structures and Equipment Removal: **\$ 425,000**

[According to the Conditions of Approval for a Surface Mining Permit 00-02, Item 10, adopted by Yuba County on November 20, 2001, the removal of, "All debris, salvage, inoperable vehicles, scrap metal, containers, and other items not related to the mining operation...." shall be removed by November 20, 2002].

Removal of processing facilities/equipment = \$125,000

Removal of boneyard materials = \$50,000

(Contingency for hazardous waste)²⁰ = \$250,000

IV. Monitoring and Miscellaneous Costs: **\$ 33,000**

SMARA inspections (3 yrs. x \$2,000 each) = \$6,000

Revegetation replacement (10% of Planting Costs) = \$25,000

County grading/hauling permits = \$2,000

V. Summary of Direct Reclamation Costs: **\$ 895,477**

VI. Summary of Indirect Reclamation Costs: **\$ 207,750**

Supervision (4.5%; chart) = \$ 40,296

Profit & Overhead (9.2%, chart) = \$ 82,384

Contingencies (7%, chart) = \$ 62,683

Mobilization (2.5%, mid-point chart) = \$ 22,387

VII. Total of Direct and Indirect Costs: **\$1,103,227**

VIII. Lead Agency Administrative Costs: **\$ 165,484**
(15% of Direct and Indirect Costs)

IX. Total Estimated Cost of Reclamation: **\$1,268,711**

²⁰ Ground contamination because of hot batch plant, large boneyard with machinery, tanks, tires, etc.

EXECUTIVE OFFICER’S RECOMMENDATION: The Executive Officer recommends that the SMGB approve a financial assurance amount from either Estimate I or Estimate II for the Dantoni Pit site. The calculations of these amounts are demonstrated in this Report, and are based on an analysis by the OMR of the reclamation plan and on-site inspections conducted by the SMGB in both 2002 and 2003.

SUGGESTED MOTION LANGUAGE:

To approve the financial assurance amount:

Mr. Chairman, in light of the information before the SMGB today, I move that the SMGB approve a financial assurance for the Dantoni Pit Mine Site in the amount of \$_____. The operator, Noble D. and Eleanor Plant, shall provide to the SMGB office a financial assurance instrument in the amount of \$_____ in a form acceptable to the SMGB within 30 days of receipt of written notice of this action.